

**Amendment to the Specification**

Please amend the Specification as follows:

**On page 23, please amend the specification as follows:**

embodiments select ethylene oligomerization pressures (gauge) from 0 kPa-35 MPa or 500 kPa-15 MPa.

The preferred and primary feedstock for the oligomerization process is the  $\alpha$ -olefin, ethylene. But other  $\alpha$ -olefins, including but not limited to propylene and 1-butene, may also be used alone or combined with ethylene.

In an embodiment, the catalyst system is reacted with ethylene, propylene, 1-butene, or a mixture of any two or all three of ethylene, propylene, and 1-butene.

Invention oligomerization processes may be run in the presence of various liquids, particularly aprotic organic liquids. The homogeneous catalyst system, ethylene,  $\alpha$ -olefins, and product are soluble in these liquids. A supported (heterogeneous) catalyst system may also be used, but will form a slurry rather than a solution. Suitable liquids for both homogeneous and heterogeneous catalyst systems, include alkanes, alkenes, cycloalkanes, selected halogenated hydrocarbons, aromatic hydrocarbons, and in some cases, hydrofluorocarbons. Useful solvents specifically include hexane, toluene, cyclohexane, and benzene.

In an embodiment, the catalyst's activity exceeds 8000 moles of ethylene per mole transition metal per hour.

**On page 24, line 1, please amend the specification as follows:**

various olefins in the resulting product. The ability to vary this factor provides the ability to choose the then-desired olefins.

In an embodiment, the polymerization methods further comprising recovering a product comprising greater than 50 mol% of linear C<sub>4</sub>-C<sub>14</sub>  $\alpha$ -olefins based on the total weight of polymerized product. Alternately the product comprises greater than 80 mol% of linear C<sub>4</sub>-C<sub>14</sub>  $\alpha$ -olefins.

In another embodiment, the polymerization product comprises greater than 50 mol% of linear C<sub>3</sub> and C<sub>6</sub>  $\alpha$ -olefins, alternately greater than 80 mol% of linear C<sub>4</sub> and C<sub>6</sub>  $\alpha$ -olefins.